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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,847	08/06/2003	Masanori Onuma	Q76879	6506
23373	7590	09/13/2005		
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER LE, THANH TAM T	
			ART UNIT	PAPER NUMBER
			2839	

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/634,847

Applicant(s)

ONUMA ET AL.

Examiner

Thanh-Tam T. Le

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 July 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-4 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swengel, Sr. et al. (3,656,092) in view of Applicant's submitted Prior Art (APA).

Swengel, Sr. et al., figures 4-7, discloses a connecting terminal fitting (16) and elastic wire (10), comprising:

- a terminal fitting (16, 22);
- an electric wire (10);
- a conductive connecting member (24) formed with an insertion hole;
- inserting the electric wire into the insertion hole of the connecting member;
- compressing the connecting member radially inwardly (column 2, lines 64-66) to caulk an inserted portion of the electric wire uniformly over a whole periphery thereof; and
- welding the connecting member and the terminal fitting (column 3, lines 18-20).

Swengel, Sr. et al. disclose the instant claimed invention as described above except for welding the connecting member and the terminal fitting by applying ultrasonic wave.

APA, figures 7 and 8, discloses wire (51) and a flat-type aluminum wire (55) are heated and melted by an ultrasonic wave-generating source (57). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Swengel, Sr. et al. to have the ultrasonic wave as taught by APA for better welding.

Regarding claim 2, the combination of Swengel, Sr. et al. and APA disclose the connecting member is compressed and shaped by rotary swaging.

Regarding claim 3, figure 7, Swengel, Sr. et al. disclose the connecting member including a first hole portion and a second hole portion which is larger than the first hole in diameter. The electric wire having a core wire (12) covered with an insulating sheath (not shown). The core wire is inserted in the first hole portion and the insulating sheath is inserted in the second hole portion, and the first hole portion and the second hole portion are disposed coaxially with each other. The connecting member is compressed so that the insulating sheath is held in intimate contact with the second hole portion.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Swengel, Sr. et al. and APA as applied to claim 1 above, and further in view of Newman et al. (5,624,287).

Swengel, Sr. et al. discloses the instant claimed invention as described above except for the terminal fitting is provided with a clamping portion.

Newman et al., figure 1, disclose a termination device (20) having a crimp barrel (22), which is read on a clamping portion. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Swengel, Sr. et al.

to have the crimp barrel, as taught by Newman et al. for crimping to the conductor insulation.

### ***Response to Arguments***

4. Applicant's arguments filed 7/11/05 have been fully considered but they are not persuasive.

The Applicant argues that Swengel fails to teach or suggest compressing a connecting member radially inwardly to caulk an inserted portion of the electric wire. The Examiner disagrees, the limitation above has been disclosed in column 2, lines 64-66. The term "to caulk an inserted portion of the electric wire" is not positively claimed.

Applicant argues that there would have been no motivation for one of ordinary skill in the art to modify Swengel to use ultrasonic welding as taught by the APA. The Examiner disagrees, Swengel uses electrode E instead of ultrasonic wave to weld the connecting member and the terminal fitting (column 3, lines 18-20). APA uses ultrasonic wave to weld the wire (51) and a flat-type aluminum wire (55). It would have been obvious to one of ordinary skill in the art to modify Swengel to use ultrasonic welding as taught by the APA for better welding.

For the above reasons, it is believed that the rejections should be sustained.

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
6. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh-Tam T. Le whose telephone number is 571-272-2094. The examiner can normally be reached on 7:30-5:00.
8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TC Patel can be reached on 571-272-2098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Tle', with a long horizontal line extending from the end of the signature.

Thanh-Tam T. Le  
Primary Examiner  
Art Unit 2839

TL.  
09/09/05.